REMARKS

Applicants thank Examiner Kruer for the courtesy shown the inventor and Applicants' representatives in the interview conducted January 11, 2001. Claims 1-21 are pending in the present application. Claims 1-19 have been examined, with Claims 20-21 being withdrawn from prosecution by the Examiner.

No claims have been added, deleted, or amended by this amendment. No additional fees are believed due. However, the Director is hereby authorized to charge any deficit, or credit any overpayment, to Deposit Account No. 11-0855.

REJECTIONS OF CLAIMS UNDER 35 U.S.C. §103(A)

Claims 1-19 have been rejected under 35 U.S.C. § 103(a) over various combinations of the following references: U.S. Patent No. 5,274,024 to Koyoma et al., U.S. Patent No. 5,663,223 to Teumac et al., JP-0172416 (assigned to Daiichi Seiyaku Co.), U.S. Patent No. Moritani et al., U.S. Patent No. 5,320,889 to Bettle III, U.S. Patent No. 5,133,999 to Lofgren et al., U.S. Patent No. 5,492,953 to Itamura et al., and U.S. Patent No. 5,204,389 to Hofeldt et al.

The primary references applied in each of the rejections is either Koyama et al., Bettle III, or Lofgren et al. However, none of these references, either alone or in combination with any of the other references cited teach or suggest a composition in which a kneaded mixture of a hydrophilic reducing organic compound and a hydrophilic water insoluble thermoplastic resin is dispersed in a hydrophobic thermoplastic resin.

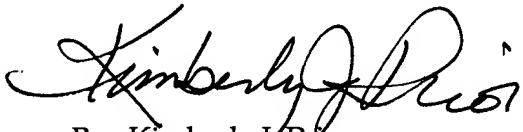
In the interview conducted January 11, 2001, the differences between the claimed and prior art compositions were discussed. It was discussed that differences in the methods of manufacturing the compositions results in differences in the compositions themselves. Enclosed with this response is a declaration from Shozo Shimuzu containing

experiments which are a side-by-side comparison of compositions containing the same ingredients manufactured by either (1) the method of the present invention and (2) the method of the prior art. These experiments show that the compositions of the present invention exhibit unexpected oxygen absorption properties when compared with the compositions of the prior art. For at least these reasons, Applicants respectfully request reconsideration and withdrawal of this ground of rejection.

Applicants respectfully submit that this is a complete response to the Office Action dated November 16, 2001, and that Claims 1-19 are patentable. Early and favorable consideration is earnestly solicited. If the Examiner believes there are other issues that can be resolved by telephone interview, or that there are any informalities remaining in the application which may be corrected by Examiner's Amendment, a telephone call to the undersigned attorney at (404) 949-2400 is respectfully solicited.

Respectfully submitted,

KILPATRICK STOCKTON, LLP



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KS#: 44471-233979

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	HARA ET AL.		
Application No.	08/973,416	Examiner:	KEVIN KRUER
Filed:	NOVEMBER 14, 1997	Art Unit:	1773
For:	RESIN COMPOSITION AND LAMINATE FOR STORAGE OF LIQUID FOOD		

DECLARATION UNDER 37 C.F.R. § 132

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

I, Shozo Shimizu, do hereby declare:

1. I am a citizen of Japan and a co-worker of the inventors of the above-referenced patent application.

2. I received a Master's Degree in chemistry from Okayama University in 1977.

3. I am currently employed by Nihon Tetra Pak K.K. which belongs to the same group as the group to which Tetra Laval and Holdings & Finance, S.A. belongs. I have been employed by 'Nihon Tetra Pak' for six years.

4. I performed the following experiments.

PREPARATION OF POLYMERS

Method 1

Invention Embodiment 1

Ascorbic Acid (0.5 parts by weight) and ethylene-vinyl alcohol copolymer (9.5 parts by weight containing ethylene at 47 molar %) were supplied simultaneously to a dual extruder and kneaded together. This composition was then mixed with low-density polyethylene (90 parts with a density of 0.919 g/cm^3) to obtain a pellet.

Invention Embodiment 2

Ascorbic Acid (1.0 parts by weight) and ethylene-vinyl alcohol copolymer (19 parts by weight containing ethylene at 47 molar %) were supplied simultaneously to a dual extruder and kneaded together. This composition was then mixed with low-density polyethylene (80 parts with a density of 0.919 g/cm^3) to obtain a pellet.

Invention Embodiment 3

Ascorbic Acid (2.0 parts by weight) and ethylene-vinyl alcohol copolymer (18 parts by weight containing ethylene at 47 molar %) were supplied simultaneously to a dual extruder and kneaded together. This composition was then mixed with low-density polyethylene (80 parts with a density of 0.919 g/cm^3) to obtain a pellet.

Method 2

Comparative Example A

Ascorbic Acid (0.5 parts by weight), ethylene-vinyl alcohol copolymer (9.5 parts by weight containing ethylene at 47 molar %), and low-density polyethylene (90 parts with a density of 0.919 g/cm^3) were supplied simultaneously to a dual extruder and kneaded together to obtain a pellet.

Comparative Example B

Ascorbic Acid (1.0 parts by weight), ethylene-vinyl alcohol copolymer (19 parts by weight containing ethylene at 47 molar %), and low-density polyethylene (80 parts with a density of 0.919 g/cm^3) were supplied simultaneously to a dual extruder and kneaded together to obtain a pellet.

Comparative Example C

Ascorbic Acid (2.0 parts by weight), ethylene-vinyl alcohol copolymer (18 parts by weight containing ethylene at 47 molar %), and low-density polyethylene (80 parts with a density of 0.919 g/cm^3) were supplied simultaneously to a dual extruder and kneaded together to obtain a pellet.

OXYGEN ABSORPTION TEST

In the Presence of Water

50g of the pellets of each of the samples prepared above and 10 ml of distilled water were placed in a 180 ml-volume, oxygen-impermeable, cup-shaped container that was then heat sealed with an oxygen impermeable film. The container was placed in a constant temperature bath at 15°C. The oxygen concentration was measured with an oxygen micro-analyzer directly after heat sealing, after one week and after two weeks to determine the reduction in the oxygen content and, therefore, the amount of oxygen absorbed.

In the Absence of Water

50g of the pellets of each of the samples prepared above were placed in a 180 ml-volume, oxygen-impermeable, cup-shaped container that was then heat sealed with an oxygen impermeable film. The container was placed in a constant temperature bath at 15°C. The oxygen concentration was measured with an oxygen micro-analyzer directly after heat sealing, after one

week and after two weeks to determine the reduction in the oxygen content and, therefore, the amount of oxygen absorbed.

RESULTS

In the absence of water	After Two Weeks	0	0	0.1		0.6	1.1	2.8	
	After One Week	0	0	0		0.4	0.6	1.6	
	Immediately after grafting	0	0	0		0	0	0	
	Compositions of the present invention	Invention Embodiment 1	Invention Embodiment 2	Invention Embodiment 3	Compositions of the prior art	Comparative Example A	Comparative Example B	Comparative Example C	
In the presence of water	After Two Weeks	1.3	2	5.2		1.4	2	5.3	
	After One Week	0.7	1.1	2.8		0.8	1.3	3	
	Immediately after grafting	0	0	0		0	0	0	
	Compositions of the present invention	Invention Embodiment 1	Invention Embodiment 2	Invention Embodiment 3	Compositions of the prior art	Comparative Example A	Comparative Example B	Comparative Example C	

DISCUSSION

The data presented in the above table show that the compositions of the present invention and those of the prior art absorb oxygen and exhibit ascorbic acid depletion in the presence of water. However, in the absence of water, the compositions of the present invention do not absorb oxygen and do not exhibit ascorbic acid depletion. In contrast, the compositions of the prior art exhibit oxygen absorption and ascorbic acid depletion in the absence of water. Therefore, the compositions of the present invention exhibit unexpected differences from the prior art compositions in oxygen absorption and ascorbic acid depletion.

5. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are made punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the above-identified application or any patent issuing thereon.

May 14, 2001
Date

Shozo Shimuzu

Attorney Docket No. 44471-233979 (13700-0176)